

In the Claims:

This Listing of claims will replace all prior versions, and listings, of claims in the Application:

1. (Currently amended) A document modification apparatus for modifying image data read by image input means, comprising:

region extracting means for extracting a plurality of regions from the image data, each region being a unit to be modified;

region selection means for selecting target regions to be modified from the plurality of regions through an operator;

modification specifying means for specifying kinds of the modifications for the target regions selected by the region selection means through the operator; and

modification image making means for making a modified image, based on the kinds of the modifications, in the regions in the image data selected by the region selection means, specified by the modification specifying means;

wherein the region extracting means extracts rectangle regions as the target regions to be modified, and the region extracting means comprises a first judgment means for judging whether an attribute of the rectangle region is one of a “character” and “ruled-line,” and “others,” projection means for taking a projection data in vertical and horizontal directions of the rectangle region of the image data, and a second judgment means for judging whether the attribute of the rectangle region, whose attribute has been judged by the first judgment means as “others,” is one of a “table,” a “photograph,” and a “frame” according to a number of peaks detected from the projection data,

operation of the second judgment means being based on whether the first judgment means identifies the attribute as “others.”

2 – 3 (Canceled)

4. (Previously presented) The document modification apparatus according to claim 1, wherein the region extracting means integrates the rectangle region, whose attribute has been judged as “character” by the first judgment means, per line and paragraph, and the region selection means selects the target region to be modified per line and paragraph through the operator.

5. (Previously presented) The document modification apparatus according to claim 1, wherein the region extracting means displays on the display screen the rectangle regions extracted by the region extracting means with the image data read by the image input means, and selects whether each rectangle region on the display screen is modified or not through the operator.

6. (Previously presented) The document modification apparatus according to claim 1, wherein the modification specifying means displays an at-a-glance menu showing information regarding kinds of the modification, and selects the modification, to be applied to the selected rectangle regions, from the kinds of the modifications shown in the at-a-glance menu through the operator.

7. (Previously presented) The document modification apparatus according to claim 1, wherein the modification image making means comprises memory means for storing position

information of the selected rectangle regions by the region selection means and the modification information regarding the kinds of the modifications specified by the modification specifying means,

and the modification image making means performs the modification for the image data read by the image input means based on the position information and the modification stored in the memory means.

8. (Previously presented) The document modification apparatus according to claim 1, further comprises resolution conversion means for changing a resolution of the input image data to a reduced image and display means for displaying the reduced image obtained by the resolution conversion means with the rectangle regions extracted by the region extracting means.

9. (Currently amended) A document modification apparatus for modifying image data read by image input means, comprising:

region extracting means for extracting a plurality of regions from the image data, each region being a unit to be modified;

automatic modification means for automatically selecting target regions to be modified from the plurality of regions, and for automatically modifying the selected target regions based on modifications that have been set in advance; and

modification image making means for making an image modified image in the target regions selected by the automatic modification means based on the kinds of the modifications determined by the automatic modification means;

wherein the region extracting means extracts rectangle regions as the target regions to be

modified, and the region extracting means comprise a first judgment means for judging whether an attribute of the rectangle region is one of a “character” and “ruled-line,” and “others,” projection means for taking a projection data in vertical and horizontal directions of the rectangle region of the image data, and a second judgment means for judging whether the attribute of the rectangle regions, whose attribute has been judged by the first judgment means as “others,” is one of a “table,” a photograph,” and a “frame” according to a number of peaks detected from the projection data, the operation of the second judgment means being based on whether the first judgment means identifies the attribute as “others.”

10. (Previously presented) The document modification apparatus according to claim 9, wherein the automatic modification means determines a kind of the modification to be applied to each selected target region in consideration of the attribute for the selected target region and the position of the selected target region in the input image data.

11. (Canceled)

12. (Previously presented) The document modification apparatus according to claim 1, wherein the image input means converts the input image data to binary image data.

13. (Previously presented) The document modification apparatus according to claim 9, wherein the image input means converts the input image data to binary image data.

14. (Original) An image processing apparatus comprising:

image input means for reading image data from a document;

the document modification apparatus, as claimed in claim 1, for making modified image by modifying the input image data obtained by the image input means; and

image output means for outputting the modified image obtained by the document modification apparatus.

15. (Original) An image processing apparatus comprising:

image input means for reading image data from a document;

the document modification apparatus, as claimed in claim 9, for making modified image by modifying the input image data obtained by the image input means; and

image output means for outputting the modified image obtained by the document modification apparatus.